



## Contents of Volume 47

### Number 1

1 Obituary—Professor Cornelis Teunis de Wit (1924-1993)

1 Combined Use of Watershed, Aquifer and Crop Simulation Models to Evaluate Groundwater Recharge through Percolation Ponds  
M. SELVARAJAN, A. K. BHATTACHARYA (India) &  
F. W. T. PENNING DE VRIES (The Netherlands)

25 The Management Factor in Developing-Country Agriculture: Argentina  
M. GALLACHER (Argentina)

39 Economic Analysis of the Long-Term Consequences of Farming Practices in the Barley Cropping Area of Jordan  
D. HUGHES, W. BUTCHER (USA), A. JARADAT (Jordan) & W. PENARANDA (USA)

59 The Economic Potential of a Small Scale Flow-Through Tank System for Trout Production  
C. M. GEMPESAW II, J. R. BACON, I. SUPITANINGSIH & J. HANKINS (USA)

73 An Integrated Model for Growth and Nutritional Value of Timothy  
A.-M. GUSTAVSSON (Sweden), J. F. ANGUS (Australia) &  
B. W. R. TORSSELL (Sweden)

93 Predictions of Growth and Nutritional Value of Forage Leys with a Dynamic Model  
A.-M. GUSTAVSSON (Sweden)

107 Participatory Rural Appraisal Design: Conceptual and Process Issues  
L. M. WEBBER (Australia) & R. L. ISON (UK)

i Papers Published in Volumes 44-46

### Number 2

133 Models of Sorghum and Pearl Millet to Predict Forage Dry Matter Production in Semi-arid Mexico. 1. Simulation Models  
A. D. BAEZ-GONZALEZ & J. G. W. JONES (UK)

147 Models of Sorghum and Pearl Millet to Predict Forage Dry Matter Production in Semi-arid Mexico. 2. Regression Models  
A. D. BAEZ-GONZALEZ & J. G. W. JONES (UK)

161 Farming Systems Research and Rural Poverty: Relationships between Context and Content  
S. D. BIGGS (UK)

175 An Integrated Approach to Assessing the Farm and Market Level Impacts of New Technology Adoption in Australian Lamb Production and Marketing Systems: The Case of Large, Lean Lamb  
G. R. GRIFFITH, D. T. VERE & B. W. BOOTLE (Australia)

199 Empirical Evidence of Mechanization Effects on Smallholder Crop Production Systems in Botswana  
A. PANIN (Botswana)

211 Projects, Politics and Professionals: Alternative Approaches for Project Identification and Project Planning  
D. HULME (UK)

235 An Approach to Prediction of Feed Intake in Growing Pigs Using Simple Body Measurements  
C. T. WHITTEMORE, J. C. KERR & N. D. CAMERON (UK)

245 A Decision Support System for Rapid Assessment of Lowland Rice-based Cropping Alternatives in Thailand  
A. JINTRAWET (Thailand)

**Number 3**

259 The Management, Funding and Organisational Structure of Agricultural R&D in Zimbabwe, Malawi and South Africa. Part I—Management and Funding  
P. A. DONOVAN (South Africa)

273 The Management, Funding and Organisational Structure of Agricultural R&D in Zimbabwe, Malawi and South Africa. Part II—Organisational Structure  
P. A. DONOVAN (South Africa)

291 Constraints Limiting Innovation Adoption in the North Queensland Beef Industry.  
I: A Socio-economic Means of Maintaining a Balanced Lifestyle  
B. R. FRANK (Australia)

323 Constraints Limiting Innovation Adoption in the North Queensland Beef Industry.  
II: Non-adoption is an Intelligent Response to Environmental Circumstances  
B. R. FRANK (Australia)

347 The Economics of Recently Introduced Village Cattle Production in a Tsetse Affected Area (I): Trypanotolerant N'Dama Cattle in Zaire  
P. ITTY (Switzerland), G. J. ROWLANDS (Kenya), M. MINENGU, S. NGAMUNA, F. VAN WINKEL (Zaire) & G. D. M. D'IETEREN (Kenya)

**Number 4**

367 An Economic Evaluation Methodology for Smallholder Maize Research and Extension: Zimbabwe  
J. A. MACMILLAN (Canada), G. MUDIMU, J. F. MACROBERT, L. RUGUBE, E. GUVEYA, L. T. MUTEMERI, K. CHAKANYUKA (Zimbabwe) & B. JOHNSTON (Canada)

387 Potential Productivity and Human Carrying Capacity of an Agro-Ecosystem: An Analysis of Food Production Potential of China  
M. CAO (UK), S. MA & C. HAN (China)

415 Modelling the Requirement of the Young Growing Pig for Dietary Protein  
C. T. WHITTEMORE (UK)

427 A Simulation Study of Sugar Cane Harvesting  
R. SEMENZATO (Italy)

439 The Role of Modelling in the Quest for Sustainable Farming Systems  
S. PANDEY & J. B. HARDAKER (Australia)

451 Introducing Awassi Sheep to Australia: an Application of Farming System Models  
R. S. KINGWELL, A. K. ABADI GHADIM, S. D. ROBINSON & J. M. YOUNG (Australia)

473 The Economics of Recently Introduced Village Cattle Production in a Tsetse Affected Area (II): Trypanotolerant Cattle in Southern Togo  
P. ITTY (Switzerland), G. J. ROWLANDS (Kenya), G. MORKRAMER (Germany), A. DEFLY (Togo) & G. D. M. D'IETEREN (Kenya)

493 Contents of Volume 47

